

HOUSE BILL 757

By McDonald

AN ACT to amend Tennessee Code Annotated, Title 68,
relative to contaminant biomonitoring.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF TENNESSEE:

SECTION 1. The general assembly finds and declares all of the following:

(a) An estimated one hundred thousand (100,000) chemicals are registered for use today in the United States. Another two thousand (2,000) chemicals are added each year. Some toxicological screening data exists for only seven to ten percent (7-10%) of these chemicals. More than ninety percent (90%) of these chemicals have never been tested for their effects on human health. Large numbers of these chemicals are found in cosmetics, personal care products, pesticides, food dyes, cleaning products, fuels, and plastics. Because of their ubiquity in modern life, Tennesseans are commonly exposed to multiple chemicals every day. Many of these chemicals persist in the environment, and accumulate and remain in body fat, and have been shown to be toxic.

(b) Biomonitoring studies have scientifically demonstrated that human exposure to a multitude of chemicals is widespread. The federal centers for disease control and prevention has documented the presence of one hundred forty-eight (148) environmental chemicals in the blood and urine of Americans of all ages and races.

(c) Biomonitoring studies will provide data that will help Tennessee scientists, researchers, public health personnel, and community members explore linkages between chemical exposures and health.

(d) Biomonitoring data supports public health by establishing trends in chemical exposures, validating modeling and survey methods, supporting epidemiological studies, identifying highly exposed communities, addressing the data gaps between chemical exposures and specific health outcomes, informing health responses to unanticipated

emergency exposures, assessing the effectiveness of current regulations, and helping to set priorities for reform.

(e) The general assembly, therefore, finds and declares that the establishment of a statewide biomonitoring program will assist in the evaluation of the presence of toxic chemicals in a representative sample of Tennesseans, establish trends in the levels of these chemicals in Tennesseans' bodies over time, and assess effectiveness of public health efforts and regulatory programs to decrease exposures of Tennesseans to specific chemical contaminants. A statewide and community-based biomonitoring program will expand biomedical, epidemiological, and behavioral public health research. Tennessee, an established leader in health promotion, health policy, and health care delivery and response, should encourage and fund this research, which will contribute to the health and well-being of millions of people.

SECTION 2. Tennessee Code Annotated, Title 68, is amended to add the following as a new chapter:

68-____-101.

(a) This chapter shall be known, and may be cited, as the Tennessee Environmental Contaminant Biomonitoring Program.

(b) For the purposes of this chapter, unless the context otherwise requires:

(1) "Biological specimen" means a sample taken from a biophysical substance, that is reasonably available within a human body, for use as a medium to measure the presence and concentration of toxic chemicals;

(2) "Biomonitoring" means the process by which chemicals and their metabolites are identified and measured within different biological specimens;

(3) "Commissioner" means the commissioner of the TDEC.

(4) "Community" means geographically or nongeographically-based populations that may participate in the community-based biomonitoring program. A "nongeographical community" includes, but is not limited to, populations that may share a common chemical exposure through similar occupations, populations experiencing a common health outcome that may be linked to chemical exposures, or populations that may experience similar chemical exposures because of comparable consumption, lifestyle, product use, or subpopulations that share ethnicity, age, or gender;

(5) "Department" means the department of health;

(6) "Designated chemicals" means those chemicals that are known to, or are strongly suspected of, adversely impacting human health or development, based upon scientific, peer-reviewed animal, human, or in vitro studies, and consist of only those substances including chemical families or metabolites that are included in the federal centers for disease control and prevention studies that are known collectively as the national reports on human exposure to environmental chemicals program and any substances as specified pursuant to § 68-_-202(c);

(7) "Panel" means the scientific guidance panel established pursuant to part 2 of this chapter;

(8) "Program" or "biomonitoring program" means the Tennessee environmental contaminant biomonitoring program, which shall be established and operated by the department, in collaboration with the TDEC; and

(9) "TDEC" means the Tennessee department of environment and conservation.

68-____-102. The department, in collaboration with the TDEC, shall establish the Tennessee environmental contaminant biomonitoring program. The department is the lead entity for the program, unless otherwise specified in this chapter. The program shall utilize biological specimens, as appropriate, to identify designated chemicals that are present in the bodies of Tennesseans. Biomonitoring shall utilize scientifically based statewide surveys. Additional community-based surveys shall be contingent on funding and shall be statistically valid and scientifically based. Biomonitoring shall take place on a strictly voluntary and confidential basis. Results reported pursuant to this chapter shall not disclose individual confidential information of participants. Appropriate biological specimens shall be used to monitor and assess the presence and concentration of designated chemicals. Biological specimens shall be analyzed by laboratories operated by the department, TDEC, or their contractors.

68-____-103.

(a) All participants shall be evaluated for the presence of designated chemicals as a component of the biomonitoring process. Participants shall be provided with information and fact sheets about the program's activities and its findings. Individual participants may request and shall receive their complete results. Any results provided to participants shall be subject to the institutional review board protocols and guidelines. When either physiological or chemical data obtained from a participant indicate a significant known health risk, program staff experienced in communicating biomonitoring results shall consult with the individual and recommend follow-up steps, as appropriate. Program administrators shall receive training in administering the program in an ethical, culturally sensitive, participatory, and community-based manner.

(b) Individuals selected to participate in the biomonitoring program shall reflect the age, economic, racial, and ethnic composition of the state. Other selection criteria may be applied, as appropriate, for studies of specific populations.

(c) Informational materials and outreach activities directed to program participants and communities shall, to the extent possible, be culturally appropriate and translated as needed. Educational materials shall be adapted to the biological specimens being used.

68-____-104.

(a) The program shall develop guidelines and model protocols that address the science and practice of biomonitoring to implement this chapter, including, but not limited to, study design, subject recruitment, and data collection and management, and that accomplish all of the following:

(1) Ensure confidentiality and informed consent;

(2) Communicate findings to participants, communities, and the general public;

(3) Emphasize all aspects of the program in a culturally sensitive manner; and

(4) Serve as a guide for other biomonitoring programs supported by state funds.

(b) The program shall incorporate, as appropriate, the methods utilized by the federal centers for disease control and prevention for the studies known collectively as the national report on human exposure to environmental chemicals.

(c) The department and TDEC shall collaborate on the development of fact sheets and other informational and outreach materials for the biomonitoring program.

(d) The department, in collaboration with TDEC, shall conduct statistical and epidemiological analyses of the biomonitoring results.

(e) Personal information shall not be shared without the written and informed consent of the individual to whom it pertains.

(f) No governmental agency or private person or entity shall discriminate against a person or community based upon the biomonitoring results.

68-____-201.

(a) In implementing the program, the department and TDEC shall establish a scientific guidance panel. The panel shall be composed of nine (9) members, whose expertise shall encompass the disciplines of public health, epidemiology, biostatistics, environmental medicine, risk analysis, exposure assessment, developmental biology, laboratory sciences, bioethics, maternal and child health with a specialty in breastfeeding, and toxicology.

(b) The governor shall appoint five (5) members to the panel, the speaker of the senate shall appoint two (2) members, and the speaker of the house of representatives shall appoint two (2) members. The appointments shall be made after soliciting recommendations of the office of the president of the University of Tennessee and the chancellor of the board of regents of the state university and community college system.

(c) All members shall be appointed to the panel by September 1, 2007. Members shall be appointed for three-year terms, except that, with respect to the initial appointees each appointing power shall appoint one (1) member for a one-year term and one (1) member for a two-year term. Members may be reappointed for additional terms without limitation.

(d) The panel shall meet as often as it deems necessary, with consideration of available resources, but at a minimum, three (3) times per year. TDEC shall be responsible for staffing and administration of the panel.

(e) The panel meetings shall be open to the public and be subject to the provisions of title 8, chapter 44.

(f) Members of the panel shall be reimbursed for travel and other necessary expenses incurred in the performance of their duties under this chapter, but shall not receive a salary or compensation. Reimbursement shall be in accordance with the travel regulations promulgated by the commissioner of finance and administration and approved by the attorney general and reporter.

68-____-202.

(a) The panel shall provide scientific peer review and make recommendations regarding the design and implementation of the program, including specific recommendations for chemicals that are priorities for biomonitoring in Tennessee, as specified in subsections (b) and (c), with the program retaining final decision-making authority.

(b) The panel shall recommend priority chemicals for inclusion in the program using the following criteria:

(1) The degree of potential exposure to the public or specific subgroups, including, but not limited to, occupational;

(2) The likelihood of a chemical being a carcinogen or toxicant based on peer-reviewed health data, the chemical structure, or the toxicology of chemically related compounds;

(3) The limits of laboratory detection for the chemical, including the ability to detect the chemical at low enough levels that could be expected in the general population; and

(4) Other criteria to which the panel may agree.

(c) The panel may recommend additional designated chemicals not included in the centers for disease control and prevention report, for inclusion in the program using the following criteria:

(1) Exposure or potential exposure to the public or specific subgroups;

(2) The known or suspected health effects resulting from some level of exposure based on peer-reviewed scientific studies;

(3) The need to assess the efficacy of public health actions to reduce exposure to a chemical;

(4) The availability of a biomonitoring analytical method with adequate accuracy, precision, sensitivity, specificity, and speed;

(5) The availability of adequate biospecimen samples; and

(6) The incremental analytical cost to perform the biomonitoring analysis for the chemical.

68-____-203.

(a) As appropriate, the program shall utilize the principles of TDEC's environmental justice program, so that the activities of the panel and the implementation of the program provide opportunities for public participation and community capacity building with meaningful stakeholder input. This strategy and plan shall accord the highest respect and value to every individual and community by developing and conducting public health and environmental protection programs, policies, and activities

in a manner that promotes equity and affords fair treatment, accessibility, and protection for all Tennesseans, regardless of race, age, culture, income, or geographic location.

(b)

(1) To carry out this section, the program shall develop a strategy and plan that are to be followed in the implementation of the program. This strategy and plan shall be used to establish the framework for integrating public participation in this program. The department may utilize models used by boards, other departments, and other agencies for community outreach pursuant to this section.

(2) Public participation shall include, but need not be limited to, conducting stakeholder meetings and workshops to solicit relevant information, data, suggestions, and feedback for the development and implementation of the program.

68-____-204. Implementation of this chapter shall be contingent on a specific appropriation being provided for this purpose in the annual general appropriations act or other measure.

68-____-205.

(a) By January 1, 2010, and every two (2) years thereafter, the department, in collaboration with TDEC, shall submit a report to the general assembly containing the findings of the program, and shall include in the report additional activities and recommendations for improving the program based upon activities and findings to date. Copies of the report shall be made available via appropriate media to the public within thirty (30) calendar days following its submission to the general assembly.

(b) The department shall provide the public access to information which they are required to release pursuant to title 10, chapter 7, part 5.

(c) The department and TDEC shall disseminate biomonitoring findings to the general public via appropriate media, including governmental and other web sites in a manner that is understandable to the average person.

(d) Any health and environmental exposure data made available to the general public shall be provided in a summary format to protect the confidentiality of program participants. The data shall be made available, after appropriate quality assurance and quality control, by July 1, 2010, and at least every two (2) years thereafter.

68-____-206. The commissioner of health is authorized to promulgate rules and regulations to implement the provisions of this act in accordance with the provisions of title 4, chapter 5.

SECTION 3. This act shall take effect July 1, 2007, the public welfare requiring it.